

ABSTRACT

The invention relates to a filament excellent in incision resistance comprising as a primary component a polyethylene filament having a weight-average molecular weight of 300,000 or less and a ratio of a weight-average molecular weight to a number-average molecular weight (M_w/M_n) of 4.0 or less as determined in the state of a filament as well as a modulus of 500 cN/dtex or more, and to a fabric excellent in incision resistance, a fibrous material for reinforcing cement mortar or concrete, and a rope, each of which comprises the filament. The filament can be produced by drawing a non-drawn polyolefin filament which comprises a polyethylene having a weight-average molecular weight of 60,000-600,000, a ratio of a weight-average molecular weight to a number-average molecular weight (M_w/M_n) of 4.5 or less, and a rate of birefringence (Δn) of 0.008 or more, at a temperature not higher than the α -relaxation temperature of said non-drawn filament.